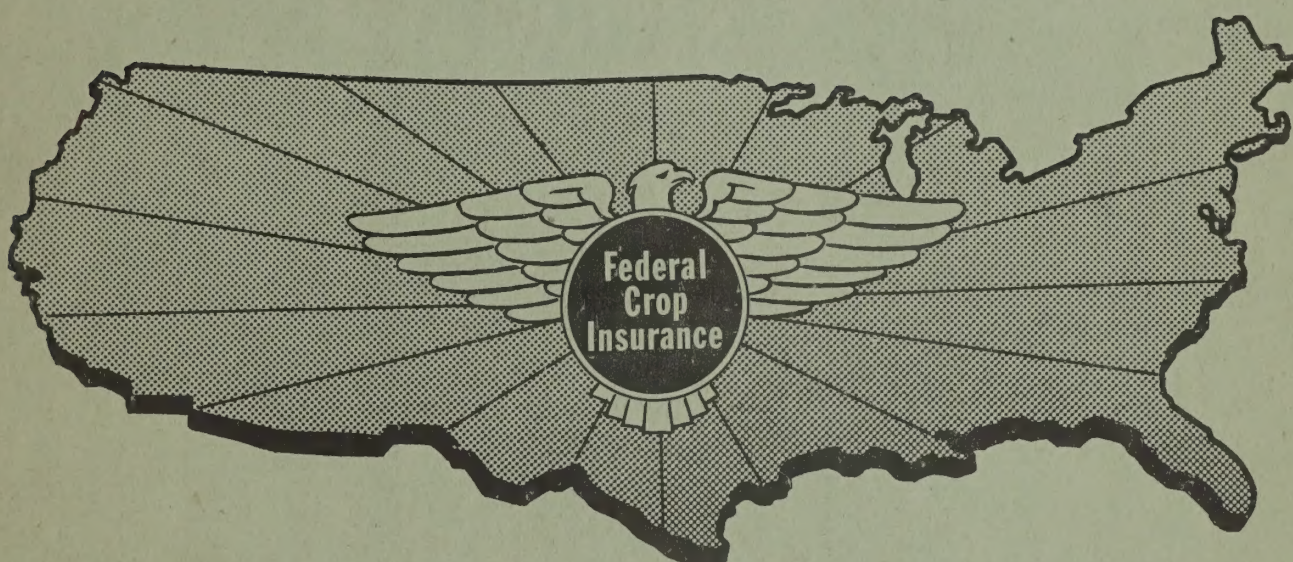


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# **ADJUSTER'S HANDBOOK**



**FEDERAL CROP INSURANCE CORPORATION  
UNITED STATES DEPARTMENT OF AGRICULTURE  
WASHINGTON 25, D.C.**

**August, 1949**



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## INTRODUCTION

The adjustment of losses under the crop insurance programs is one of the most important jobs we have to perform. This makes the loss adjuster a keyman in the crop insurance organization. On the basis of his work, the Federal Crop Insurance Corporation has paid out millions of dollars in indemnities during the years of its existence. In a sense, the loss adjuster is a middleman whose job is to serve both the insured and the program. In serving the insured, the adjuster is interested in determining all of the facts about a loss so that the insured may receive the full protection to which he is entitled under the insurance contract. In addition, the adjuster is interested in seeing that the insured has a proper understanding of the program and the basis on which his loss is adjusted. In serving the program, the adjuster is, in reality, serving all insureds in the county. He is, in effect, a custodian of the premium bank account which is built up by the contributions from all farmers participating in the program. The results of his work are, therefore, the same as the writing of checks against the premium bank account. At the end of the program year all insured farmers who have deposited premiums in the account will, in effect, examine the cancelled checks (indemnities paid) to see if their program has been run on a business-like basis.

Since 1945, the Federal Crop Insurance Corporation has had full responsibility for adjusting losses under its programs. During this period, loss adjusters have been employed by the Corporation. These adjusters work under the direction of the State Crop Insurance Director who has over-all responsibility in the state for administering the insurance programs. Much of the experience gained in loss adjustment work since 1945 cannot easily be incorporated into the detailed loss adjustment manuals which we issue. After all, our procedures are designed to obtain only the minimum amount of information needed to get the job done. In view of this, and in order to obtain the greatest benefit possible from our experience, this Handbook has been written.

It is hoped that this Handbook will receive careful study by each adjuster and that it will be used along with the insurance policy and the regular loss adjustment manuals.



## CONTENTS

	<u>Page</u>
Importance of Loss Adjustment Work	1
Coverages and Premium Rates	7
Acreage Reports	9
Insured Acreage and Insured Interest	10
Insurance Period	11
Insurance Unit	11
Protection is Provided Only Against Loss Due to Unavoidable Hazards	11
Notice of Loss or Damage	12
Time of Loss	12
Proof of Loss	13
Subrogation	13
Collateral Assignment	14
Records and Access to Farm	14
Voidance of Contract	16
Controversial Cases	16
Growing-Season Inspections	17
Inspections Involving Release of Acreage	18
Pre-Harvest Inspections	19
Final Inspection for Loss Adjustment	20
Appraisals	22
Checking the Work of Adjusters	23
Crop Acreage Measurement and Computation	23
Determining the Quantity of Grain Stored in Bins, Cribs, and Granaries	32



## The Importance of Loss Adjustment Work

The adjustment of losses in any year represents the end of a chain of events which began well in advance of the planting or seeding of the insured crop. At the beginning the insured had faith that the coming year would be one which would give him a normal or better crop. However, he is one of the many thousands in all parts of the country who have come to realize that the odds against producing a normal or better crop are high. His past experience has taught him that while he could plow, plant, and cultivate in accordance with the best farming practices, he would be faced throughout every crop year with many natural hazards to production over which he had little, if any, control. His good business judgment has caused him to accept the principle of insurance for protection against these hazards by pooling annually a small part of his income against the day when a crop loss beyond his control would wipe out his labor and investment in the crop and impair his credit.

If misfortune strikes and unavoidable causes place him in the sizeable group of farmers who suffer an insured loss in any year, loss adjustment means for him the process of determining the extent of his right to protection from the premium bank account. Loss adjustment also has a meaning for many others in the community. To other insured farmers it is evidence that the premiums paid in are being returned according to plan to those who have suffered insured losses. To farmers generally, it is clear evidence that in any year large numbers of them can lose their battle with nature and yet be protected to the extent that they can make another effort to produce a crop the following year. To businessmen and others in the community it is evidence that the ill effects of crop failures on the general well-being of the community are being softened.

A crop insurance program in a county is in reality a mutual undertaking in which most of the people in the county have a vital interest. In the first place, those farmers who are participating in the program are directly affected by the manner in which it operates. The program is first set up in the county to provide a certain amount of protection at a cost where it is believed that over a period of years the premiums paid by insureds will balance with the losses paid to them, plus an adequate reserve for unforeseen losses. From this point forward, the actual loss experience in the county will be the primary factor in determining the kind of program which can be provided and what it will cost.

It may be seen, therefore, that poor administration, such as poor loss adjustment work, can vitally affect all insureds. An insurance program which is basically sound and in which there is wide participation by farmers can fail in its purpose due to poor loss adjustment work. Insured farmers who suffer losses are entitled to, and it is expected



that they will receive, the full protection given by their contracts. On the other hand, these same farmers will realize that the improper payment of indemnities is, in effect, the writing of unauthorized checks against their premium bank account, which must be made up by increased rates applicable to all insureds in the county. It is important for adjusters to remember that it will be difficult to justify increased costs of the protection offered if such increases are to pay for mistakes in loss adjustment.

The premiums paid by farmers are used only to pay insured losses. For this reason, the public generally has a mutual interest in the program and the way in which it operates since public funds obtained through taxes were used to provide the capital stock of the Corporation and are used to provide yearly for the cost of administering the program. In addition, since the purpose of crop insurance is to promote the national welfare by improving the economic stability of agriculture, the public generally can be adversely affected by poor loss adjustment work.

The farmers who participate in the program and whose premiums will be used to pay losses will probably be the first to recognize loss adjustment work which does not meet a high standard. However, we must keep in mind that other people in the county will find out about poor adjustment work. This kind of information travels fast. In addition, the Corporation is required to post annually in each county at the county courthouse, a list of indemnities paid for losses on farms in the county.

Good loss adjustment work represents a combination of many factors, including the following:

Prompt Settlement of Losses. To a great extent, individuals and organizations are judged by their promptness in paying their debts. When an insured loss occurs, the Corporation has, in effect, incurred a debt. Therefore, the Corporation is anxious to promptly establish the true facts about the loss and discharge its obligation to the insured. Speed is of particular importance in the payment of insurance claims. We must remember that when an insured loss occurs it means a severe financial shock to most of us and the indemnity becomes very important to us. All of the good will which an insured has for the Corporation can rapidly disappear because of unjustified delays on our part in adjusting and paying his loss. However, the desirability of prompt adjustment and settlement of claims does not mean that we can "cut corners" in our adjustment work and overlook or lightly pass over any of the points on which we must have information in order to establish whether or not an insured loss occurred and, if so, the amount of the loss.



Loss adjustment work must move rapidly from the time notice of loss is given until final action is taken on the claim. Insureds are required under their contracts to give prompt notice of any material damage or loss. The primary reason for this requirement is to permit a representative of the Corporation to inspect the insured crop at a time when it is possible to make all of the determinations necessary to properly adjust the loss. Therefore, in addition to the need for promptness from the individual farmer's standpoint, it is also important from the standpoint of protecting the interests of other insured farmers that we complete loss adjustments as quickly as the necessary facts can be determined.

Loss claims which must be suspended and held for additional information or returned to the adjuster for further handling create a special kind of problem which adjusters must recognize and promptly handle. When it becomes necessary to pull a loss claim out of the regular flow of work it materially increases the cost and time of handling the claim. For this reason the adjuster should make every effort to develop the facts required to handle each case and to be sure that the forms have been properly prepared. If it becomes necessary to suspend a claim, then the adjuster should give it preferred attention and correct the cause for the suspension as quickly as possible. Failure to do this can reflect on the adjuster and adversely affect our relations with the insured.

Courtesy, Impartiality, and Firmness in Dealing with the Insured.  
The attitude with which the adjuster approaches his job and his ability to work with farmers are important factors which will affect the quality of loss adjustment work. Most of us have seen people who like to argue for argument's sake, those who approach a job in a biased and dictating manner, and those who have trouble in forming a definite opinion with any given set of facts. It is believed we would generally agree that an adjuster with any of these handicaps would find it difficult to perform a satisfactory job. Each insured whose loss is being adjusted should be approached and dealt with in a friendly, courteous, and helpful manner. If there are any reasons, personal or otherwise, why an adjuster feels that he cannot work with a particular insured without friction, he should not attempt to adjust the loss but should ask the State Director to assign another adjuster to the case. Experience has shown that adjusters should not attempt to adjust losses for relatives. Even though the work is done in strict conformance with the provisions of the insurance contract, it invites criticism and misunderstandings by people who do not have an opportunity to know the facts.

Every action which the insurance contract and the procedures require us to take in adjusting a loss is for a definite purpose and is, therefore, explainable. The fact that the contract contains a certain provision or that the procedure requires something to be done a certain way is not, in itself, a very satisfactory explanation to a question. If we can go a step further and explain why we have the provision and



why we have to handle it in a certain way, the chances are good that the insured will be satisfied and that he will be able to pass this information on to others. Adjusters should keep in mind that an insured whose loss is being adjusted will probably be more interested in the provisions of his contract and the manner in which losses are adjusted than at any other time. He is entitled to an explanation on any phase of the program about which he inquires.

Since the adjuster may be the only Corporation representative who sees the insured, he has a responsibility to clear up any misunderstandings about how the program works. If, at any time, questions about the program are asked which the adjuster cannot answer, he should inform the insured that he is not certain that he can answer the question correctly but that he will either obtain the information and give it to him or he will pass the question along to the State Office for a reply. If the latter method is followed, a note could be attached to the loss claim or inspection report explaining the nature of the question and requesting that the insured be properly informed. Copies of correspondence answering these questions should be forwarded to the adjuster so that he will have the answer the next time the question is raised.

If the adjuster approaches his job in a courteous, friendly, and impartial manner, it should enable him to more easily obtain the facts in each case and to be firm once a decision is made. It is a natural, human characteristic for all of us to try to obtain what we feel is a "good settlement" for any loss covered by insurance. This is due in part, no doubt, to the realization that our actual loss is always greater than the insured loss and we are anxious to recover as much of our actual loss as possible. There are, of course, some individuals who, in perfectly good faith, think they are entitled to a larger indemnity than the provisions of their contract will permit. It is very necessary in these cases that every effort be made to clear up any misunderstanding. Also, there are a few individuals who are willing to go to the extent of knowingly withholding information and submitting false claims in their efforts to obtain something to which they are not entitled. These cases involve special problems which will be covered later in this Handbook.

In summing up that part of the adjuster's job which concerns his contacts with the insured, we believe that he must have the right attitude. If the adjuster has the right attitude he will know that both the insured and the Corporation have rights which must be protected. He will know that losses must be adjusted in strict compliance with the terms of the insurance contract and that improper adjustment, whether it be in the insured's favor or the Corporation's favor, will hurt the program and make his own job more difficult in the future. He



will know that he must get along with people and sell himself as well as the program. He will know that since the Corporation will be paying indemnities or refusing to pay indemnities on the basis of his work, he must obtain all of the facts in each case. Finally, he will know that he cannot make every insured happy but, having done his job properly, he will know that he has made a real contribution to the development of a sound program.

Background Information on Crop Insurance and other Agricultural Programs. The adjuster's work will be made much easier if he is well informed on crop insurance matters of general interest. Why do we have a crop insurance program? How does the insurance program fit in with other Federally sponsored programs for agriculture? What has been the county, state, and national experience under the program? What have other countries done in the way of providing crop insurance? The answers to all of these questions will be of interest to insureds. This kind of information will help to promote a better understanding of the program and it will help the adjuster in his dealings with the insured.

In addition to background information on crop insurance, the adjuster will find it very helpful in his work if he has at least a general knowledge of other agricultural programs administered in the county. Past experience has shown that adjusters are asked many questions, and receive complaints about programs not directly related to crop insurance. The adjuster is an important member of the "crop insurance family," and he should remember that the Federal Crop Insurance Corporation is one of several agencies which constitute the United States Department of Agriculture "family." All of the Agricultural agencies in a county have as their primary purpose, service to farmers. While each agency and its employees have individual responsibilities, we must not forget that we share a joint responsibility for service on an over-all basis.

Detailed Knowledge of the Program. A good job of loss adjusting, like playing a good game of baseball, can be done only if we know the rules. The rules in our case are the contract provisions, the procedures, and the forms. Crop insurance programs operate by means of a written contract between the individual farmer and the Corporation. The insurance contract, like any other business contract, is an agreement between the parties whereunder each party is legally bound to the faithful performance of its terms. The Corporation develops a program of insurance protection for a commodity within the limitations of its legislative authority. The program is offered to farmers for their individual consideration and decision as to whether the protection is desired. If the individual decides that he wants the protection, he submits an application for insurance, agreeing to be bound by the terms and conditions under which it is offered. Upon acceptance of the application by an authorized representative of the Corporation, a



contract is created. Under the contract each party has certain legally enforceable rights, and certain responsibilities of performance which cannot be assumed by, or delegated to, a third party.

If the insured feels that any settlement by the Corporation has not been made in accordance with the terms of his contract, he can obtain a review of the facts by legal means if he so desires. This works both ways in that the Corporation can legally enforce its rights under the insurance contract when it is believed to be in the best interests of the program to do so. It is important, therefore, that adjusters understand the businesslike nature of the arrangement under which the insurance programs operate, and know the rules of the game. A lack of knowledge or a misunderstanding of the contract terms and procedures can place either the insured or the Corporation at a disadvantage. It can create delays and unnecessary expense and it can have a bad effect on our relations with the individual. If an adjuster feels at any time that he may not have a proper understanding of any phase of his job, he should get in touch with the State Director or the person designated to supervise his work. Failure to do this can only result in improper loss adjustments and adversely affect the adjuster's future usefulness to the program.

Knowledge of the Commodity and of the Cultural and Harvesting Practices Followed in the Area. It is possible that an adjuster could be well informed on the provisions of the insurance program and the loss adjustment procedure and yet be handicapped in his work because of unfamiliarity with the insured commodity or the farming practices followed in the area in which he is working. The insurance contract gives protection for loss in yield due only to certain specified unavoidable causes of loss. This means that the adjuster must be able to properly identify the cause of loss and if an uninsured cause of loss is involved, he must be able to determine the reduction in yield due to the uninsured cause. Since the adjuster will be called on to make appraisals of probable production at various stages of the crop, appraisals for unharvested production, and appraisals of the loss of production due to poor farming practices and other uninsured causes of loss, it goes without saying that he must know the commodity and what constitutes good farming practices for it in the community.

Accuracy. This item really speaks for itself. The insurance contract must, of necessity, provide for coverages, premium rates, loss adjustment, and other items in specific terms. It naturally follows that all items of loss adjustment subject to accurate determination, such as acreage, actual production, share in the crop, and cause of loss, must be accurately determined if we are to properly protect the premium bank account. In signing a loss claim, both the insured and the adjuster certify to the accuracy of the information contained therein. The Corporation believes these certifications are quite important and it expects that those items on the loss claim which are subject to accurate determination have, in fact, been accurately determined.



Sound Judgment. That part of the loss adjustment job which requires the exercise of sound judgment can, at times, give us a great deal of trouble. It is in this area of the loss adjustment work where we can let the insured's desires or objections unduly influence our thinking. It is also in this part of the adjustment work that we have the basis for most of our controversies. If we recognize these dangers and prepare for them, the quality of our work will improve. Appraisals of production and for reduction in yields due to uninsurable causes of loss, together with the job of sizing up a man and his operations, are important items where judgment plays a major part.

Before making any decisions where judgment is involved, the adjuster should first accumulate all factual information which would be of assistance in making a decision. If poor farming practices are involved, what did the insured's neighbors who followed good farming practices produce? If it is a question of total production, what information is available in the community from other farmers, truckers, wage hands, etc., as to the production? How does the production compare with that obtained from other farms in the community having similar soil and operated in about the same manner. After the adjuster accumulates all of the factual information which is available he will probably find that he is in a better position to arrive at a sound decision and obtain agreement on it with the insured. Once a decision is made in this manner, the adjuster would not ordinarily change it except on the basis of additional information.

#### Coverages and Premium Rates

One of the major requirements of a successful insurance program is a sound actuarial basis. This is as true with respect to Federal Crop Insurance as for any other type of insurance.

The Crop Insurance Act provides that the Corporation fix premium rates sufficient to cover claims for crop losses and to establish a reasonable reserve against unforeseen losses. It is the policy of the Corporation to incorporate in the premium rate structure the insurance experience of the county. Since actual crop insurance experience in the county will determine the premium rate producers will pay in future years, it is highly desirable that a sound actuarial basis for insurance be developed.

In building a sound insurance program, it is necessary that proper coverages and adequate premium rates be established for the insurable land of a county. In view of the necessity of establishing such coverages and premium rates, it must also be realized that no insurance program can last long without a good job of loss adjustment by the local adjusters. If adjusters are inaccurate in settling losses we can only look forward to failure as our end result. Consequently, the value of the job you perform cannot be overestimated as to its importance in regard to the future of the crop insurance program.



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The all-risk type of insurance is relatively new when it is compared to other types of insurance. Even though we have had 10 years experience on a wheat crop insurance program, it is considered to be a short period of insurance history. If farmers cooperate to make the program succeed they will be helping themselves in the building of their own mutual insurance program. When coverages and premium rates are out of line with either the productivity of the land or risk of loss involved, they will be adjusted in succeeding years on the basis of actual insurance experience gained in the county.

In the interest of a sound program, it is to the advantage of insured producers in a county to build up an adequate premium reserve to take care of unforeseen losses. However, many individuals, as well as counties, have a consistently good record of loss experience. In order to recognize this good experience earlier than the Corporation would be justified in reducing premium rates, provision is made in the insurance programs which have been operating for a number of years to allow a reduction in the annual premium of those insureds who meet the standards of good experience. In addition, in order to recognize good experience on a county basis, when the accumulated balance of premiums over indemnities in the county is determined by the Corporation to be large enough to exceed the greatest loss that is likely to occur in any year, a discount in premium will be made to all producers who were insured the year previous to the year in which the discount will become effective.

A sound actuarial basis for insuring any crop requires: (1) elimination of all poor risks, (2) an accurate classification of land in the county, (3) establishing a premium rate for all areas of land adequate to cover the risk of insuring the crop, and (4) spread of the insurance business over all insurable areas of the county so as to get the best possible distribution of risks.

The insurance coverage as established by the Corporation offers protection to the farmer for most of his cost of production or the investment in the crop. The premium rates in a county over a period of years must be sufficient to pay estimated losses which will occur during such period of years.

The Corporation is charged with the responsibility of establishing coverages and premium rates which are actuarially sound. In the establishment of different coverage areas within a county, it is necessary to give proper consideration to soil classifications, community or township yields, productivity indexes, topography maps and other available data which have a bearing on the determination of areas and the amount of coverage to be offered in such areas. Where different premium rates are established for different areas, it is necessary to consider the insurance hazards for the particular areas and to establish the proper rate for such insurance risks. All significant hazards such as flood, hail, drought, erosion, poor drainage or other conditions which affect the insurance risk are given consideration when the different coverage and premium rate areas are established for the county.



In addition to land on which high-risk premium rates are to be established, we have land which should be identified as "unclassified" on the crop insurance map. This is any land on which the risk of growing the insured crop is so great or uncertain that it is impracticable or impossible to measure the insurance risk involved.

Insurance experience has shown that certain producers are also poor risks. In order to have a sound insurance program with the lowest possible premium rates it is essential that all such producers be placed on a "List of Ineligible Producers." Producers whose names should appear on this list include those to whom loss claims have been paid more frequently than would be justified in the light of prevailing crop conditions and producers who follow poor farming practices or questionable business practices.

Each adjuster is required to prepare a Form FCI-26, "Adjuster's Report," when adjusting losses although this is not a loss adjustment form. The information contained on the executed form will be used for improving the actuarial structure for the county and in screening out poor risks. It is very important that proper consideration be given to this report. A complete narrative explanation of all pertinent factors involved which may either directly or indirectly have a bearing on the risk of loss should be reported in order that the Corporation may be able to properly evaluate the report and initiate appropriate adjustment. The adjuster should comment fully on the adequacy of labor and equipment, productivity, and other important factors relating to the land, farming ability of the insured, credit and moral risk of the insured and any other pertinent items noted at the time of inspecting the insurance unit.

These prepared forms are confidential and should be handled and submitted to the State Director in accordance with his instructions. These reports will be a primary source from which to obtain information for revising areas, adjusting coverages and premium rates, designating unclassified land and determining ineligible producers. When inspecting an insurance unit you should be able to observe the need for revising the coverage or premium rate and correcting obvious errors. When these observations are properly reported the State Director will be able to carry out your suggestions in the building of a better crop insurance program for the future.

#### Acreage Reports

It would be difficult to overemphasize the importance of the acreage report in connection with the crop insurance program. Its function is to establish the premium liability of the insured and the maximum liability of the Corporation under the contract early in the insurance period while the majority of the risk is still to be run. Acreage reports submitted early in the insurance period put the insured and the Corporation on an equal footing with respect to the risks involved.



Under the terms of the insurance policy, it is the responsibility of the insured to file his acreage report promptly after seeding or planting an insured crop. In the interest of good administration, the Corporation assists insureds in the preparation and submission of their acreage reports. In many instances, this service includes a trip to the farm and the actual entering of the information on the acreage report form. However, the rendering of this service to the insured does not in any way relieve him of his responsibility for submitting the acreage report or for the accuracy and completeness of the data contained thereon. By signing the acreage report the insured certifies that the information entered on the report is correct and complete. It must, therefore, be assumed that he is aware of the information contained in his report.

If called upon to secure acreage reports, adjusters should follow closely all instructions given by the State Director or District Supervisor. Furthermore, adjusters should familiarize themselves with applicable acreage report procedures and the general instructions contained herein.

In securing acreage reports, the adjuster should always be certain that the insured knows the report is for crop insurance purposes, that if the acreage report is acceptable to the Corporation his insurance premium will be calculated on the basis of the acreage and interest reported, and that, generally, such acreage and interest are the maximum on which an indemnity will be paid if an insured loss occurs. Be sure to get a reasonably accurate description of seeded or planted acreage and estimate of such acreage. The adjuster should satisfy himself that the insured has correctly stated his interest in the crop at the time of seeding, that the insured understands all entries on the acreage report, and that he agrees such entries are correct and complete before he signs it.

You should follow closely the instructions contained in the applicable acreage report procedures and from the State Director with respect to late-filed acreage reports. In the interest of a sound program, the insured who has failed to submit an acreage report in a timely manner as required by his policy should not be asked to sign a delayed report after the crop has deteriorated or an insured loss is known to exist.

#### Insured Acreage and Insured Interest

Adjusters should have a clear understanding of what constitutes "Insured Acreage" and "Insured Interest" under the policy. These items, which are explained in the policies issued with respect to each commodity, are important in determining the amount of indemnity due in case of an insured loss. The insured acreage and insured interest, after determination as provided in the policy, are the acreage and interest on which the premium under the contract is based, and on which the indemnity is computed if an insured loss occurs.



### Insurance Period

The "Insurance Period" is that period of time during which the Corporation incurs liability for loss due to insured causes. The insurance period begins at the time the crop is planted or seeded and it ends, generally, with respect to any portion of the crop upon harvesting or removal from the field or on a date stated in the policy, whichever is earlier. However, there are certain variations between insured crops as outlined in the policies which an adjuster should remember if he is working on more than one program.

Adjusters should keep in mind that any loss which occurs after the end of the insurance period, even though such loss is caused by one of the hazards insured against, is not covered by the insurance contract unless the Corporation agrees in writing to an extension of the insurance period.

### Insurance Unit

The "Insurance Unit" is all or that portion of the insured's farming operation which the Corporation takes into consideration in settling a loss. While one insurance contract covers all of the insured's farming operations in the county, whether he has one or several farms, losses are settled separately on each insurance unit. The insurable acreage which constitutes an insurance unit is described in some detail in the insurance policy. Adjusters should be fully informed as to what constitutes an insurance unit since it is their responsibility, when adjusting a loss, to be certain that the insurance unit has been properly determined. If the insurance unit has not been properly determined, the adjuster must do so and adjust any loss on the basis of the acreage which constitutes an insurance unit as defined in the insurance contract.

### Protection is Provided Only Against Loss Due to Unavoidable Hazards

The law which authorizes crop insurance provides that the insurance shall be only against loss of the commodity due to certain specified unavoidable causes, and such other unavoidable causes as may be determined by the Board of Directors of the Corporation. The policy for each commodity specifies the causes of loss for which protection is offered. The law further provides that the insurance shall not cover losses due to the neglect or malfeasance of the producer, or to the failure of the producer to reseed to the same crop in areas and under circumstances where it is customary to so reseed, or to the failure of the producer to follow established good farming practices. The significance of this is that the adjuster must be able to recognize and identify losses which are not due to insured causes and to be able to establish the loss in yield due to uninsured causes so that



this is taken into consideration and the insured will not be paid for something he is not paying a premium for or which the law does not intend he should have. If all of the loss on the insurance unit is due to uninsured causes, appraisals of production are made to the extent that no indemnity will be paid on the unit. If the loss is due partly to insured causes and partly to uninsured causes, it is necessary to make appraisals of production to the extent required to reflect the loss due to the uninsured causes.

### Notice of Loss or Damage

If there is material damage to an insured crop and a loss under the contract is probable, it is important for the protection of both the insured and the Corporation that prompt notice be given to the Corporation. Under the crop insurance contract, like any other insurance contract, the insured has the responsibility for giving notice. The requirement for giving notice of loss or damage is for the purpose of enabling the Corporation to inspect the crop, if necessary, at a time when all of the evidence of loss or damage is present. If, as a result of material damage to the crop prior to harvest, a loss under the contract is probable, a notice of loss or damage is required and no other use is to be made of the land until an inspection has been made by the Corporation. In addition to any notice required prior to harvest, the insured is required to give notice if, at the completion of harvest of the insured crop, or at the end of the insurance period, whichever is earlier, a loss under the contract has been sustained. Because of the importance of timely notice to the loss adjustment work, the Corporation reserves the right to reject any claim for indemnity if notice is not given within the period prescribed in the policy.

While provision is made in the loss adjustment manuals that any form of notice to the county office is acceptable if a satisfactory notice of damage or loss can be prepared, insureds should be urged, for their own protection, to always give notice in writing. Oral notices can be forgotten or overlooked until it is too late for the Corporation to satisfy itself that a loss occurred or that it was due to insured causes.

### Time of Loss

The "Time of Loss" is described in the insurance policy issued with respect to each commodity. Generally, the time of loss is that time at which the amount of loss can be determined for the insurance unit. The primary reason that we have a provision in the policy establishing when the time of loss occurs is that the time of loss marks the beginning of the period of time in which the insured has to submit a notice of loss and a loss claim.



### Proof of Loss

If a loss is claimed, the insured is required to submit his claim on the appropriate form prescribed by the Corporation. The insurance contract requires that the loss claim be submitted not later than 60 days after the time of loss, unless the time for submitting the claim is extended in writing by the Corporation. Generally, it is believed that the 60-day period gives the insured ample time in which to submit a claim and an extension of the period is not ordinarily granted. However, there may be meritorious cases where a claim is submitted after the 60-day period due to no fault of the insured, or due to circumstances beyond his control, in which the Corporation will grant an extension.

Adjusters should keep in mind, however, that the Corporation normally rejects delayed claims where it has not been possible to make all of the determinations necessary to satisfactorily establish that an insured loss occurred and the amount of the loss. Before the Corporation can accept liability for any loss, the insured has the responsibility of establishing the amount of any loss for which claim is made and that such loss has been directly caused by hazards insured against and, further, that the loss has not arisen from or been caused by, either directly or indirectly, any cause which is not insured against.

### Subrogation

Certain losses, usually due to fire, for which the Corporation is liable under the contract may be due to the negligent act of a third person from whom the insured would have the right of recovery. An example would be a case where the insured lost a wheat crop from fire caused by sparks from a railroad locomotive. In order that the Corporation may protect itself in such cases, the insured, in signing a loss claim, assigns and transfers all rights of recovery against any person(s) for loss or damage to the extent that payment therefor is made by the Corporation. This transfer and assignment becomes effective upon receipt by the insured of the indemnity check. The insured, however, has a right to make a full or partial settlement with the person causing the damage. If the insured elects to make a full settlement he has no claim under his contract and a Statement in Proof of Loss should not be submitted as he has been wholly indemnified by the person causing the damage.

The insured may sustain damage to his crop in excess of that covered by insurance. In this type of case he may make a partial settlement for the damage in excess of that covered by insurance with the person causing the damage. The insured should be cautioned that in making this type of settlement, any release signed by him should state that it is only a partial settlement and does not bar the right of recovery of the additional amount due. A statement should be submitted with the Statement in Proof of Loss where the insured is claiming a loss under his contract in addition to the partial settlement received showing the



amount received, the name and address of the person causing the damage, and a complete description of how the damage occurred.

Cases of the kind discussed here should promptly be called to the attention of the State Crop Insurance Director in order that he may inform the insured of the rights of both parties under the contract. As an illustration of what could happen, the insured in the example cited above might reach an agreement with the railroad as to the amount of loss which is a partial settlement and sign a release discharging the railroad company from further liability. If the Corporation subsequently paid the insured an indemnity without full knowledge of the facts and the Corporation is unable to recover from the railroad since the right of subrogation is derived from the insured, the Corporation would require the insured to refund the payment made to him. In order to avoid a situation of this kind, the State Director should ascertain the complete facts of the case before approving the Statement in Proof of Loss.

#### Collateral Assignment

Since crop insurance assures the farmer that he will be protected up to the amount of his coverage either by actual production or by an indemnity, the possession of a crop insurance contract will make him a better credit risk and it should, therefore, be easier for him to obtain financing. In recognition of this and as a service to the insured, his contract provides that he may assign annually his right to an indemnity under the contract by executing a crop insurance form entitled "Collateral Assignment." Upon approval of this form by the Corporation, we bind ourselves to recognize, up to the amount of the assignment, the interest of the person or business to whom the assignment is given. In order for the collateral assignment to be binding upon the Corporation, it must be prepared, filed in the county office, and accepted in accordance with instructions.

Adjusters should remember that for each loss claim submitted they have the responsibility of determining if there is an outstanding collateral assignment and to report "Yes" or "No", as the case may be, on the loss claim. An approved collateral assignment may be released only in writing by the person to whom it was given.

#### Records and Access to Farm

In order that the Corporation will be in a position to establish any loss that may have occurred under the insurance contract, the insured agrees to keep, or cause to be kept, for one year after the time of loss, records of the harvesting, storage, shipment, sale, or other disposition of all of the insured commodity produced on each insurance unit covered by the contract as well as on any uninsured acreage in the



county in which he has an interest. He further agrees that these records will be made available for examination by the Corporation and, as often as may be reasonably required, permit any person designated by the Corporation to have access to the land operated by him. Failure of the insured to keep satisfactory records could make it impossible for the Corporation to properly adjust a loss. This might result in the Corporation's having to deny liability under the contract, or to adjust the loss in a manner which would adequately protect the interest of other insureds but which might not result in the maximum protection otherwise provided the insured, had satisfactory records been maintained.

The Corporation does not attempt to instruct or advise the insured as to the type of records he should keep, or to instruct the adjuster in detail as to what type of records would be satisfactory to the Corporation. Each case of loss adjustment usually presents a different set of facts and circumstances and, in the final analysis, the adjuster must size up the man, his operations, and his records, and satisfy himself as to the loss, if any, sustained under the contract.

If the insured commingles the production from two or more insurance units without having available satisfactory records to establish the amount of production from each unit, the insurance with respect to such units may be voided for the crop year and the premium forfeited by the insured, or the loss may be adjusted on the basis that all of the land constitutes only one unit. Also, if the insured should commingle production from insured acreage with production from uninsured acreage and satisfactory records are not maintained, the Corporation has the right under the contract to consider that all of the production came from the insured acreage, or the insurance with respect to the units involved may be voided for the crop year and the premium forfeited by the insured.

The commingling of production can result in the partial or total loss of protection under the contract. For this reason adjusters should discourage commingling of the insured commodity produced from two or more insurance units or from insured acreage and uninsured acreage wherever it is practicable to do so. If it is impracticable for the insured to keep production separately, then he should be certain that the records he maintains satisfactorily establish the production by insurance units and by acreage, if required. In the case of grain, some insureds who find it necessary to commingle production and who expect to sustain an insured loss, have made arrangements with an adjuster to determine the quantity of old grain stored in their bins or to determine the production from one insurance unit before such production is commingled with production from another unit.

Both the insured and the adjuster should keep in mind that prompt and efficient adjustment work depends to a large extent on how easily actual production can be determined.



### Voidance of Contract

Under any program participated in by a great number of people, there are always a few individuals who do not act in good faith, either in carrying out their responsibilities or in attempting to obtain something to which they are not entitled. In order that the interests of all insureds may be protected, the insurance contract provides that the contract may be voided by the Corporation under certain conditions and the premium may be forfeited. These conditions relate to the concealment of material facts or the making of false or fraudulent statements, failure to use all reasonable means to produce, care for, or save the insured crop, or failure to give any notice, or otherwise comply with the terms of the contract, including the note, at the time and in the manner prescribed.

If the adjuster develops or is given information which strongly indicates bad faith or fraudulent intent on the part of an insured, he should promptly report all known facts to the State Director or District Supervisor and ask for instructions as to the further handling of the case. If the facts appear to warrant a complete investigation, the State Director will want to personally look into the case before any definite decision is made as to the proper course to follow.

Our experience has shown that most of the cases which appear to justify voidance of the contract involve such things as the failure to disclose all of the production from an insurance unit or the overstatement of interest in the crop. Adjusters should keep in mind that bona fide errors occur which can be satisfactorily explained and that the Corporation is hesitant to void a contract unless the facts establish beyond a reasonable doubt that voidance is justified and desirable from the standpoint of good administration. The handling of any loss adjustment is not an appropriate subject for the adjuster to publicly discuss or debate. It is doubly important that cases which appear to be questionable be handled with good judgment and in a manner which will fully protect the rights of the individual.

### Controversial Cases

Occasionally adjusters will have cases which cannot be worked out satisfactorily with the insured. Every effort consistent with impartial loss adjustment should be made to hold the number of these cases to the minimum since they delay the work, they are expensive from an administrative standpoint, and, if improperly handled, they can cause the loss of good will throughout the community. However, an adjuster should never recommend approval of a claim against his better judgment.

Where the insured and the adjuster cannot agree, the matter should be reported to the State Director or they should file separate loss



claims for consideration depending upon instructions from the State Director. Where there is a controversy about any phase of loss adjustment which cannot be satisfactorily settled, the insured should be informed of his privilege to submit a loss claim for the amount of indemnity to which he believes he is entitled and, if he desires to do this, he should be supplied with the necessary forms. If the insured refuses to sign a loss claim which the adjuster can recommend for approval, or he refuses to submit a loss claim signed only by himself, he should be informed of the limitation in his contract with respect to the time in which claims must be filed. Controversial cases must be accompanied by a complete record of all the facts. These cases usually result in considerable correspondence and they may result in litigation.

### Growing-Season Inspections

One of the Corporation's principal sources of information during the insurance period with respect to the condition of crops and cultural practices being carried out is its contacts with farmers through its field representatives. Crop insurance adjusters make most of these contacts and thereby furnish the Corporation with much of its information. The accuracy and completeness of information contained in inspection reports and other material are, therefore, extremely important. Each inspection should be made on the basis that your findings and the information contained in your report might be the deciding factor in the settlement of some controversial case.

The purposes of growing-season inspections are to determine whether seedbeds were properly prepared, whether the crop was properly seeded or planted, and whether good farming practices are being carried out so that indemnity payments will not be made where the damage is caused by uninsured causes of loss.

When growing-season inspections are made, the inspections should, in all instances, be thorough enough to permit a satisfactory determination on each of the above factors. Furthermore, adjusters should, insofar as it is practicable, determine whether the description of the reported acreage is correct, and whether the insured has reported all acreage in which he has an interest, or has reported acreage in which he actually has no interest. Various cases come to our attention where an insured fails to report his total acreage, often claiming that certain acreage belongs to some member of his family, apparently for the purpose of avoiding the payment of the premium. Other cases come to our attention where an insured reports an interest in acreage which actually belongs to some other member of his family in order to obtain insurance for someone who has not signed a contract. Many such cases have been avoided by alert adjusters. We believe that



many more of these cases could be eliminated if all our adjusters watch for such conditions when making inspections. A few minutes could be well spent observing conditions and asking questions. When adverse conditions are found, the acreage report procedure should be strictly observed with respect to revised acreage reports. However, the inspection report should set out clearly all of the facts in the case.

In cases where established good farming practices are not being followed, or where cultivation is being delayed to a point where it may damage the crop, the exact conditions found should be definitely stated in the inspection report. Furthermore, the acreage involved should be accurately identified on the report and a reasonably accurate estimate made of the acreage. Where such conditions are found, they should always be discussed with the insured. Failure to do so invariably leads to dissatisfaction and sometimes puts the Corporation in a very embarrassing position. When conditions are particularly bad or when, in the opinion of the adjuster, the conditions are caused by the neglect of the insured, a detailed report should be prepared and the District Supervisor or State Director requested to also inspect the crop. In such cases, the insured should be informed of the conditions found and advised that proper appraisals will have to be made for any reduction in yield due to the uninsured causes of loss.

#### Inspections Involving Release of Acreage

It has been the policy of the Corporation to release acreage for other use when an insured crop has been totally or substantially destroyed. A crop is considered to be substantially destroyed when it has been damaged to the extent that farmers generally, under the circumstances, would not further care for the crop or harvest any part thereof. The reason for releasing such acreage is so that a farmer may make the best use of his land from the standpoint of economy and soil conservation. Therefore, when a request for inspection and release of acreage is received, every reasonable effort should be made to complete the inspection without delay. However, in certain types of damage such as hail, frost, and late freeze, release of acreage should not be made immediately. Sufficient time should elapse between the date of damage and any release of acreage to determine what recovery the crop will make. In many instances, a crop damaged from such causes may appear to be completely destroyed when a few days later it may be evident that a fair crop would be produced.

Acreage cannot be released for other use until it has been inspected and it is determined that it has actually been totally or substantially destroyed. Where only a part of the insured acreage is being released, it will not be necessary to measure such acreage. However, a reasonably accurate estimate of the acreage must be made and accurately identified on the inspection report. Where the entire acreage in an insurance unit is being released, the acreage shall be accurately determined at the time of inspection.



In releasing insured acreage for other use, the Corporation is relinquishing its right to make an actual determination of the production. Therefore, in making an appraisal of the production that would be realized if the crop was carried to harvest, the adjuster must assume that favorable growing conditions would prevail from the time of the inspection until harvest, and make the appraisal on that basis.

The inspection report prepared for the release of acreage must identify the acreage released sufficiently well that if a later inspection is made, such acreage can be definitely identified.

### Pre-Harvest Inspections

Pre-harvest inspections have proved very valuable in controversial loss adjustment cases. We believe that for the good of the program, more of these inspections should be made. However, since pre-harvest inspections are neither desirable nor feasible in all cases, they should be made on a selective basis. Pre-harvest inspections are made for two reasons, (a) to secure and place in the records information on cases where there are indications that production may later be shifted or commingled with fraudulent intent, or where there is any question about the insured or his farming practices and it appears likely that a loss claim will be filed, and (b) to determine the condition of the crops in the area and the approximate yields per acre which may be expected. It is believed that such inspections will discourage the filing of improper or fraudulent loss claims. Furthermore, it will put the Corporation in a better position to recognize and deal with such claims if filed.

These inspections should be as thorough as it is possible to make, and the results of the inspection should be carefully and fully recorded on the inspection report. Where uninsured causes of loss are found, they should be fully explained in the report and an estimate made of the amount by which production has been reduced by these causes. In all cases where pre-harvest inspections are made, the inspection report should show, by fields, the conditions found and the estimated production per acre. This is especially important where the insured has different shares in parts of the insured acreage.

Methods of estimating production will be supplied by the State Director or by this office. Insofar as practicable, these methods will be based on information supplied by the Extension Service in your state.

The inspection report should show whether the production on the insurance unit compares favorably with production generally in the area. If the production is materially lower than that on surrounding or nearby units, the reasons therefor should be fully explained on the inspection report.



### Final Inspection for Loss Adjustment

The actual amount of loss is determined at the time of the final inspection. Therefore, the adjuster must take every precaution to assure accuracy in his work. If previous inspections of the crop have been made, the reports on those inspections should be carefully reviewed before the final inspection is made. All fields of the insured crop which make up the insurance unit should be identified, inspected, and measurements taken where necessary to accurately determine the acreage.

Under the insurance contract, the insured has the responsibility of establishing any loss, that the loss claimed has been directly caused by hazards insured against, and that the loss is not due either directly or indirectly to hazards not insured against. The insured or his designated representative should always accompany the adjuster when an adjustment is being made.

Accounting for the production from an insurance unit can be one of the most difficult jobs in loss adjustment work. The insurance contract requires the insured to keep, or cause to be kept, records of the harvesting, storage, shipment, sale or other disposition of the insured commodity. Before approval of a loss claim, the Corporation must be satisfied with the production reported by the insured.

Every effort must be made to secure a report of all production and the adjuster should not merely rely on the insured's statement or the examination of evidence of sale as to the amount of production. They represent a minimum, not necessarily the full production. Modern means of transportation make it possible to market a crop a considerable distance from the farm, and since it would not be economical for the adjuster to check all possible outlets for every loss he adjusts, he must be able to compare the evidence on the farm with the production reported and determine whether all the production has been reported. In those cases where the reported production is less than the apparent probable production, further investigation should be made.

It is the adjuster's job to determine from all sources available whether the full production has been reported by the insured. There is no definite rule as to how much investigation of production is necessary, but each adjuster should go far enough so that he is satisfied that the total production has been accounted for. In doing so, he should give consideration to general growing conditions in the area; the production of other farms in the area; the available evidence as to the condition of the crop on the insurance unit; the farming operations of the insured; the productive capacity of the land; and, if the insured commodity is grain, the extent to which production may have been fed to livestock or poultry.



In cases where the adjuster feels that there is (1) unreported production or (2) unjustified differences in production between different shares in the crop or different insurance units covered by the contract, but he is unable to locate additional production or satisfy himself that the production was properly reported, the case should be immediately referred to the State Director. If an adjuster is unable to satisfy himself as to the actual production, he should not recommend approval of a claim merely because his investigation failed to disprove the evidence of production submitted by the insured.

In those cases where the crop is farm-stored, the adjuster must always accurately determine the amount of the production.

The adjuster must be firm but not argumentative. Occasionally adjusters will have cases which cannot be worked out satisfactorily with the insured. Every effort consistent with impartial loss adjustment work should be made to hold the number of these cases down since they delay the work, are expensive from an administrative standpoint and, if improperly handled, can destroy good will throughout the community. However, an adjuster should never recommend approval of a claim against his better judgment. In case of doubt about any adjustment, the adjuster should not hesitate to ask the District Supervisor or State Director for help.

Where the insured and the adjuster cannot agree, they may file separate loss claims for consideration. If an insured refuses to sign a loss claim which the adjuster can approve and does not submit a loss claim signed only by himself, he should be informed of the contractual limitation with respect to the time in which claims must be filed by the insured. Once an adjuster determines that he cannot complete a case in the manner prescribed, he should promptly refer it to the District Supervisor or State Director.

The contract provides that immediate notice in writing shall be given the Corporation in the event of damage or probable loss of the crop and that claim for loss must be submitted within 60 days of the time of loss unless such time is extended in writing by the Corporation. This provision will be strictly adhered to with a few possible exceptions where extenuating circumstances might prevent the insured from complying.

In any case where the Statement in Proof of Loss is filed more than 60 days after the time of loss (as set forth in the applicable loss adjustment manual), it is important that the adjuster prepare and sign a statement of facts as provided in the applicable loss adjustment manual.



In any case where the Corporation has been notified that a loss is probable and harvesting (or threshing) is not completed by the end of the insurance period, an inspection should be made as soon as possible thereafter. The adjuster should describe on the inspection report any damage to the crop which occurred during the insurance period. In addition, the inspection report should show an estimate of the production unharvested at such time and should include a record of any harvested production.

Particular care should be taken in filling out inspection reports and loss claims. It is very necessary that all information on these forms be correct and the extra effort put forth on the execution of these forms to assure their correctness will speed up the settlement of losses. When the adjuster prepares an inspection report, he should give a full description in the narrative report of all the related conditions and circumstances existing at the time the inspection is made. Frequently when claims are disputed all evidence of the crop in question has been removed and the inspection reports become valuable and important pieces of evidence, and are the best information available to the Corporation to use in determining its actual liability. It is also very important that every inspection report, or any written notice or report prepared by the adjuster, be dated because these dates help to establish when certain important developments took place.

After the loss forms, inspection reports, and any statements of fact have been reviewed for correctness, they should be transmitted to the State Office without delay, along with Form FCI-26, "Adjuster's Confidential Report."

### Appraisals

Appraisals of unharvested production and for loss in yield due to uninsured causes of loss probably create more controversy than any other item of loss adjustment. The failure to make appraisals where appropriate, or the making of inadequate appraisals, means that not only is the Corporation paying indemnities which the premium rates do not anticipate, but also that other insureds are contributing their premiums for the payment of uninsured losses and the program is being weakened in the process.

The adjuster should adopt an inflexible rule that the insured always be informed of any appraisals of production and the reasons therefor. Cases in which appraisals are made without the knowledge of the insured invariably result in controversy. Even though the appraisal is justified and should be made, it is not proper for the Corporation to be faced at a later date with the fact that the insured was not aware of an appraisal until he received settlement on his loss.



Adjusters who find that appraisals are necessary should never take what may seem to be the easy way out and make the appraisal without discussing it with the insured. If the appraisal is in order, it can be explained to the insured and if an agreement cannot be reached, the insured has the privilege of submitting a claim for the amount of loss he believes is due. Adjusters should remember that the failure to make appraisals where appropriate, the making of inadequate appraisals, and the failure to thoroughly discuss with the insured any appraisals which are made, cannot be defended.

### Checking the Work of Adjusters

Any organization which operates on a businesslike basis must set up controls to check on how well the various jobs are being done. In connection with loss adjustment work it is required that a certain number of cases handled by each adjuster be checked by the State Director or by some qualified person designated by him. The person making the check is required to do all of the work necessary to adjust the loss just as though it had not already been adjusted.

Checking adjustment work provides valuable information for everyone concerned. The adjuster should welcome this review of his work since it is performed in a constructive spirit to assure uniformity and accuracy of adjustments. When an adjuster's work has been checked and found to be acceptable, it should give him greater self-confidence and enable him to continue doing a good job.

If the work is done in a timely manner, it enables the State Director to clear up errors and misunderstandings early in the season before too much harm is done.

As far as the insured is concerned, checking the adjuster's work is evidence that the Corporation is anxious to be certain that loss adjustments are being made in the proper manner.

The reports which are supplied to the Washington Office of the Corporation give an over-all picture of the quality of the work, and they provide information for making desirable changes in the loss adjustment procedures and forms.

### Crop Acreage Measurement and Computation

An important part of loss adjustment work is the determination of the insured acreage under the contract. Failure to accurately determine the insured acreage may result in the farmer's receiving less than the maximum protection to which he is entitled under his contract, or it could result in an overpayment of indemnity which would adversely affect all insureds. Either result is harmful to the program.



Loss adjusters in most counties with an insurance program have access to aerial photographs, including aerial cutouts of farms, and the service of people qualified to use them in computing acreages. Where aerial photographs (including cutouts) are available to adjusters, full use should be made of them as well as of permanent field acreages established under other agricultural programs.

Notwithstanding the information and assistance which may be available, it will be necessary for adjusters, in many instances, to take accurate measurements of fields or parts of fields and make the necessary calculations to determine the acreage. It is of extreme importance when adjusting a loss that all fields of the insured crop which make up the insurance unit be identified, inspected, and measurements taken where necessary to accurately compute the acreage.

### Aerial Photographs

Where aerial photographs or cutouts are available to adjusters for use in the field, they should be handled carefully. Before taking this material to the field, each piece should be identified on a list and charged to the individual adjuster. The adjuster should see that he is properly credited when he returns the material to the county office.

Aerial photographs should not be used in computing crop acreages unless they are enlarged to an exact scale. Most of the photographs which are in use have a scale of one inch to 660 feet or 8 inches to the mile, although there are some exceptions. The acreage in any area on a photograph for which boundaries can be defined can be determined by a trained operator using a planimeter or rotometer. The acreages of areas with straight sides and definable boundaries can be readily determined by the use of a properly scaled rule in the hands of a competent operator. It will be noted that for the scale of enlargement mentioned above, one-tenth of an inch represents one chain or 66 feet.

Farm cutout aerial photographs are not scaled enlargements and should never be used to compute measurements. However, they are useful in locating fields and crop boundary lines. Permanent field boundaries and acreages on farms previously in the AAA program are shown on most of the photographs. Split fields within permanent field boundaries are also shown on the enlargements in many instances.

In using the enlargement or farm cutout for loss adjustment work, the first step is to be sure the enlargement covers the area being inspected. Ordinarily, this is done by checking location of farmstead, roads, trees, etc., on the enlargement. However, it should be remembered that some of the enlargements in use were made as early as 1938 and some identifying landmarks have, in many cases, been removed. Also, in some cases, roads have been changed and field boundaries designated as permanent have been moved.



After the proper enlargement has been selected, it is then necessary to locate the field(s) of the insured crop being inspected. If they are permanent fields with the acreage marked, or fields with previously designated splits that are definitely at the same point as before, the problem is simple since it is only a matter of recording the field identification and acreage on the inspection report.

In case the area in the crop being inspected is not a whole field, or a division needs to be made because of a difference in the insured's share in parts of the same field, or a release of acreage is being made for a different use of a part of the field, the appropriate areas should be identified and recorded as provided in the applicable loss adjustment manual. It will then be possible to identify the areas on the scaled enlargement and planimeter or rotometer the acreage or compute the acreage from the measurements according to the procedure being followed in the county.

The units of measure most generally used in determining field areas are the foot, the yard, the rod, and the chain. A table of the commonly used units of linear measure follows:

Table 1

1 yard = 3 feet

1 rod =  $16\frac{1}{2}$  feet -  $5\frac{1}{2}$  yards -  $\frac{1}{4}$  chain

1 chain = 66 feet - 4 rods

1 mile = 5280 feet - 1760 yards - 320 rods - 80 chains

The generally accepted instruments for determining the number of units of measure between given points are the surveyor's chain, the steel tape, and the steel chain tape. However, in some areas, measuring devices such as wheels, which are pushed between the points being measured and which represent a definite unit of measurement per revolution, are popular. The surveyor's chain is particularly useful in measuring distances because of its relationship to the rod and the mile. It is composed of 100 links, each of which is .66 foot long, making the chain 66 feet in length. The steel tape and the steel chain tape are usually in 50 or 100-foot lengths and are graduated in feet and inches or feet and tenths of a foot.

The surveyor's chain and tapes are used with a set of 11 marking pins made of No. 9 or heavier wire. Chains or tapes and pins are available in most county offices and may be used by adjusters with permission of the county committee. However, in some states this equipment or measuring wheels are furnished through the State Crop Insurance Director.



Where adjusters use equipment belonging to the County ACA, they should give the county committee a receipt for the equipment checked out, and should see that they are given proper credit when it is returned. Measuring equipment should be checked for accuracy and it should be handled with care.

Measurements are made by having one person carry the front end of the chain or tape while the adjuster carries the rear end. A pin is set at the point where measurement starts and the lead person, carrying 10 pins, sets a pin at the end of each chain or tape length while the adjuster picks up each pin as he comes to it. When 10 lengths have been measured, the lead person will have no pins and the adjuster will have 10, one pin remaining in the ground to mark the point. A record should be made of the exchange of pins, and the measurement continued. In this way the record will reflect the total lengths measured. At the completion of the measurement, the number of pins in the adjuster's hands plus the one on the ground marking the end of the last full measurement plus the partial length from the zero end of the chain back to the last pin set will, when added to the number of chains or tape lengths recorded, be the total length of the measurement. Frequent count should be made of the number of pins in the possession of each person to avoid losing or failing to count a pin. A piece of red or white cloth should be tied to each pin so that it will be easier to see.

All measurements should be in a straight line with the chain or tape held level. This means that when measuring over a steep slope, a correction should be made for the percentage of slope. The correction is so small on slopes less than 15 percent that it may be disregarded. The following is a table of corrections for slopes of 15 percent and above:

Table 2

Surface or Slope Distances Corresponding to  
Horizontal or True Distances of 100 Feet

<u>Grade</u>	<u>Surface Distance</u>	<u>Correction</u>
15%	101.1 feet	1.1%
20%	102.0 feet	2.0%
25%	103.1 feet	3.0%
30%	104.4 feet	4.2%
40%	107.7 feet	7.2%

Example:

Grade - 25%  
Measurement - 2000 feet  
Correction -  $2000 \times 97\% = 1940$  feet, correct horizontal  
distance to be used.



### Acreage Determination

After the necessary linear measurements of a field have been made, the number of square units is determined and this figure is divided by the number of such units in an acre to arrive at the total acreage in the field. In some cases, time may be saved by multiplying the number of square units in a field by a factor as hereinafter shown. Also, in calculating areas, time can be saved by using the largest unit of measurement possible since the larger the unit of measurement used, the smaller the size of the numbers becomes. A table of the commonly used units of square measure in an acre follows:

Table 3

1 acre = 43,560 square feet

1 acre = 4840 square yards

1 acre = 160 square rods

1 acre = 10 square chains

After the area of a field in square units is obtained, the acreage may be determined by the applicable of the following formulas:

Number of acres = Square feet in field  $\div$  43,560, or  
Sq. ft.  $\times$  .00002296

Number of acres = Square yards in field  $\div$  4840, or  
Sq. yds.  $\times$  .0002066

Number of acres = Square rods in field  $\div$  160, or  
Sq. rods  $\times$  .00625

Number of acres = Square chains in field  $\div$  10, or  
Sq. chains  $\times$  .1

For square or rectangular fields, the area in square units is determined by multiplying the width by the length.

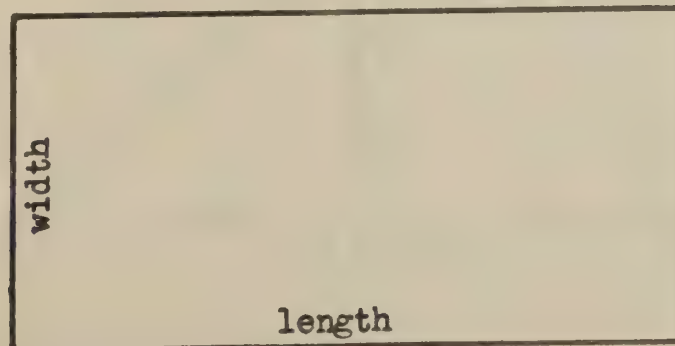


Figure 1



Example

Figure 1 has a width of 12 chains and a length of 24.2 chains.

$$\text{Area} = 12 \times 24.2 = 290.4 \text{ square chains}$$

$$\text{No. of acres} = \frac{290.4}{10} = 29.0$$

For a field in the shape of a right triangle, the area in square units is one-half of the product of the base times the altitude.

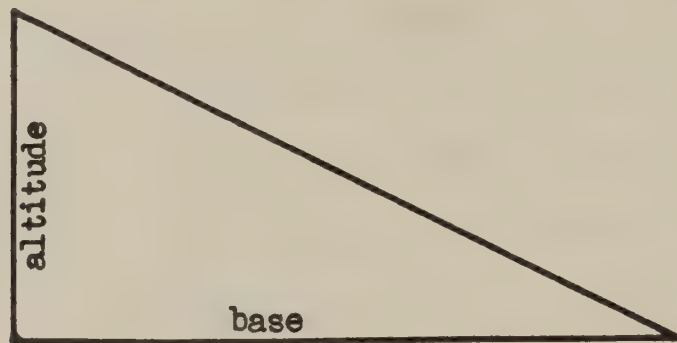


Figure 2

Example

Figure 2 has a base of 899 feet and an altitude of 387 feet.

$$\text{Area} = \frac{899 \times 387}{2} = 173,956 \text{ square feet}$$

$$\text{No. of acres} = \frac{173,956}{43,560} = 4.0$$

For a field in the shape of a triangle, the area in square units is commonly determined by multiplying one-half the base times the altitude.

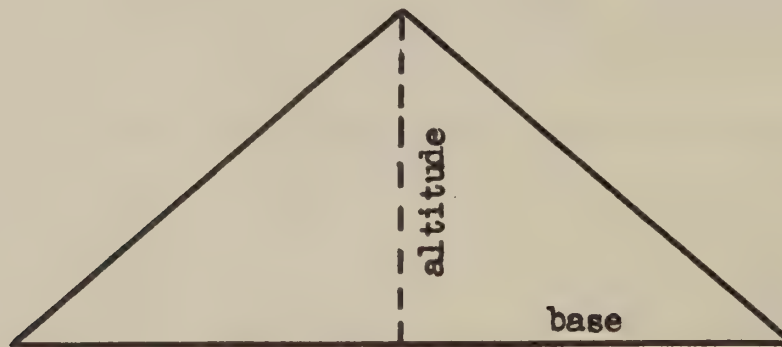


Figure 3



Example

Figure 3 has a base of 28 chains and an altitude of 12.6 chains.

$$\text{Area} = \frac{28 \times 12.6}{2} = 176.4 \text{ square chains}$$

$$\text{No. of acres} = \frac{176.4}{10} = 17.6$$

For a field having four sides, with opposite sides parallel, the area in square units is determined by multiplying the width by the length.

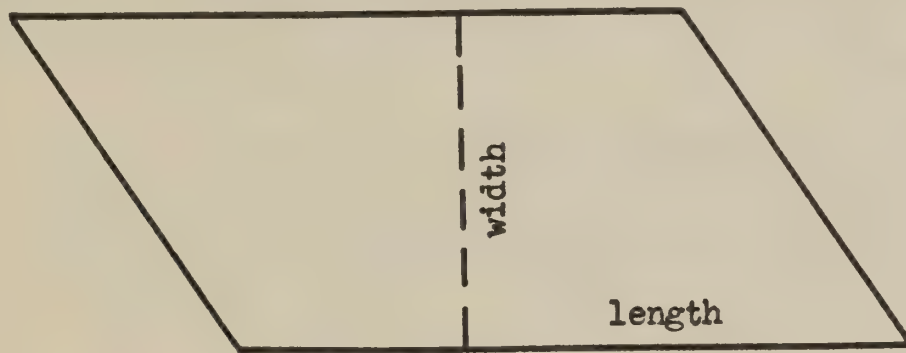


Figure 4

Example

Figure 4 has a width of 40 rods and a length of 80 rods.

$$\text{Area} = 40 \times 80 = 3200 \text{ square rods.}$$

$$\text{No. of acres} = \frac{3200}{160} = 20$$

For a field having four sides with two sides parallel, the area in square units is determined by multiplying one-half of the sum of the parallel sides by the width.

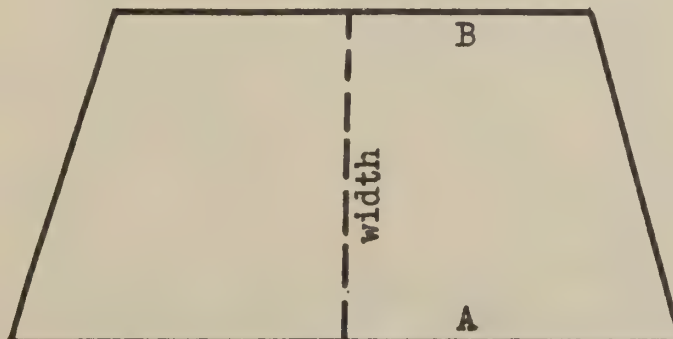


Figure 5



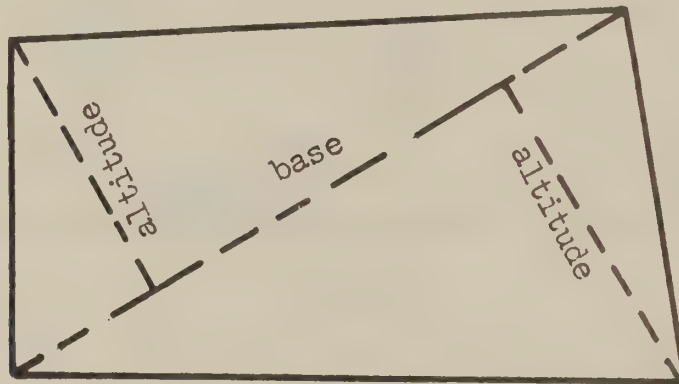
Example

Figure 5 has Side A measuring 1200 feet, Side B measuring 900 feet, and a width of 600 feet.

$$\text{Area} = \frac{1200 + 900}{2} \times 600 = 630,000 \text{ square feet}$$

$$\text{No. of acres} = \frac{630,000}{43,560} = 14.5$$

For a field having four sides with no two sides parallel, the area may be determined by dividing the field into two triangles and taking the measurements necessary to proceed as outlined for Figure 3. The area of the field in square units is the sum of the areas in square units of the two triangles.



Example

(See Figure 3)

Figure 6

For a field (Figure 7) having more than four sides, the area may be determined by dividing the field into a series of triangles by diagonal lines and obtaining the area in square units for each triangle as described earlier. The sum of the square units for the triangular areas represents the square units contained in the field.

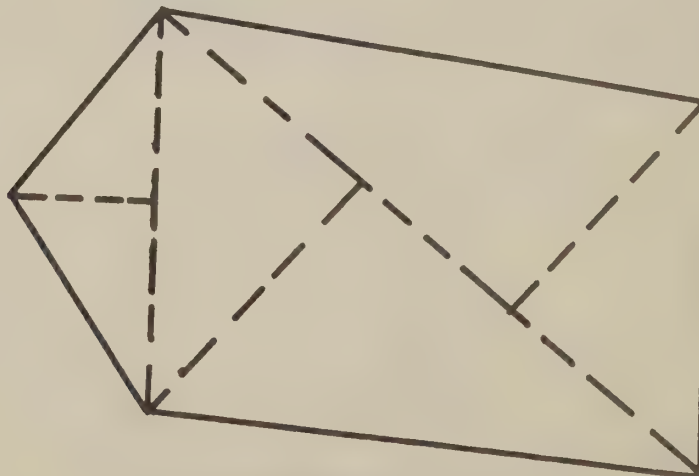


Figure 7



In determining the area of fields having one or more irregular boundaries, the following procedure should be carried out for each such boundary. Lay off a straight line (A - B in Figure 8) between opposite ends of the field and below the point where the curved boundary intersects the sides. Measure the length of the line and at uniform intervals along the line, offsets perpendicular to the line and extending to the edge of the boundary should be measured. It is important that the offsets perpendicular to the line be uniformly spaced. The area in square units of the portion of the field between the line and the curved boundary is computed by taking one-half of the sum of the two end offsets, plus the sum of all the other offsets, times the uniform distance between the offsets. The area in square units of the remaining portion of the field is determined according to its outline by one of the methods already explained.

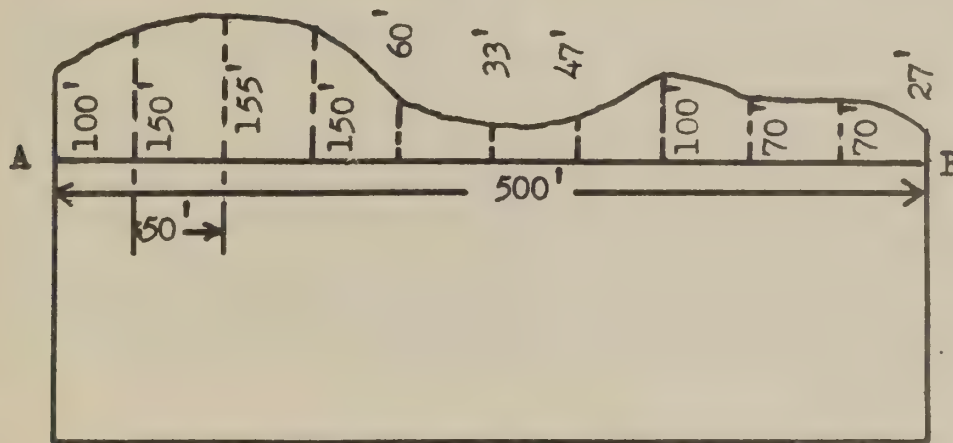


Figure 8

#### Example

The measurements shown in Figure 8 are feet as indicated.

$$\begin{aligned}\text{Area} &= \frac{100 + 27}{2} = 63.5 \\ &= 63.5 + 150 + 155 + 150 + 60 + 33 + 47 + 100 + 70 \\ &\quad + 70 = 898.5 \\ &= 898.5 \times 50 = 44,925 \text{ square feet}\end{aligned}$$

$$\text{No. of acres} = \frac{44,925}{43,560} = 1.0$$

#### Rounding of Fractions

Fractions of acres for all insured crops except tobacco should be rounded to the nearest tenth of an acre. For tobacco, fractions of acres shall be rounded to hundredths of an acre. Computations shall be carried to



one digit beyond the digit that is to be rounded. If the last digit is 4 or less, the rounding shall be downward. If the last digit is 5 or more, the rounding shall be upward.

### Determining the Quantity of Grain Stored in Bins, Cribs, and Granaries

We have already emphasized that good loss adjustment work includes an accurate accounting of all of the insured commodity produced on the insurance unit. In order to properly follow through on this part of the job, most adjusters will find it necessary to know how to determine the quantity of grain stored in farm structures, or to do the necessary field work so that the required determinations may be made.

Grain is stored on the farm in various types of structures, some of which contain chutes, vents, studs, etc. The initial job, therefore, is one of taking the minimum number of measurements necessary to determine the net cubic feet displaced by the grain. Crop insurance forms are provided for recording the necessary dimensions of structures, depth of levelled grain, and final calculations. All dimensions are to be actual inside measurements and must be expressed in feet and tenths of feet. Where structures contain chutes, vents, studs, etc., which take up space in the over-all measurements of the commodity, measurements must be made so that the volume in cubic feet displaced by these obstructions may be computed and deducted from the gross cubic feet occupied by the commodity.

The following cases will probably reflect the majority of structures encountered by adjusters. Keep in mind that "Gross Cubic Feet" includes the cubic feet of obstructions in the grain such as chutes, vents, studs, etc., and that the reference to "Measurements Required" does not take into account any additional measurements necessary to obtain the cubic feet of such obstructions. "Net Cubic Feet" means the cubic feet remaining after proper deduction for chutes, vents, studs, etc.

In determining the cubic feet as indicated for the following cases, each computation should be rounded to the nearest tenth of a foot.

#### Square or Rectangular Structures

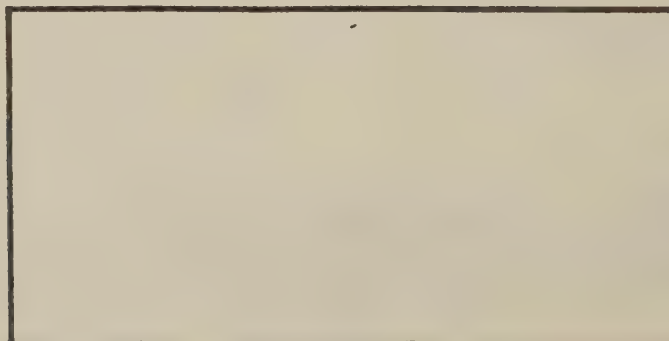


Figure 9



Measurements Required:

1. Length of the structure.
2. Width of the structure.
3. Depth of the grain in the structure.

Gross Cubic Feet = Length X Width X Depth of the grain.

Circular Structure

Measurements Required:

1. Diameter of the structure (D).
2. Depth of the grain in the structure.

Gross Cubic Feet =  $0.7854 \times \text{diameter squared} \times \text{the depth of the grain}$ , or  $3.1416 \times \text{radius (one-half of diameter) squared} \times \text{the depth of the grain}$ .

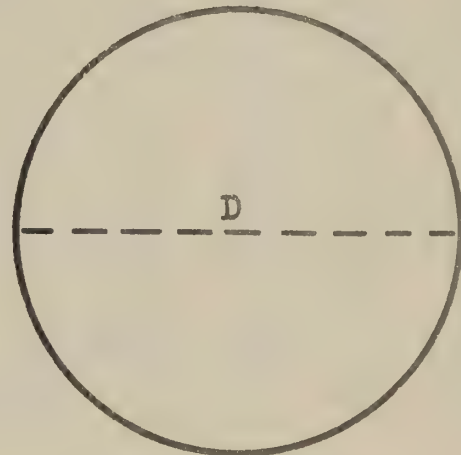


Figure 10

Section of a Circular Structure

Measurements Required:

1. Length of the arc (A).
2. Radius of the structure (r).
3. Depth of grain in the structure.

Gross Cubic Feet = Length of arc (A) X  $\frac{1}{2}$  the radius (r) X the depth of the grain.

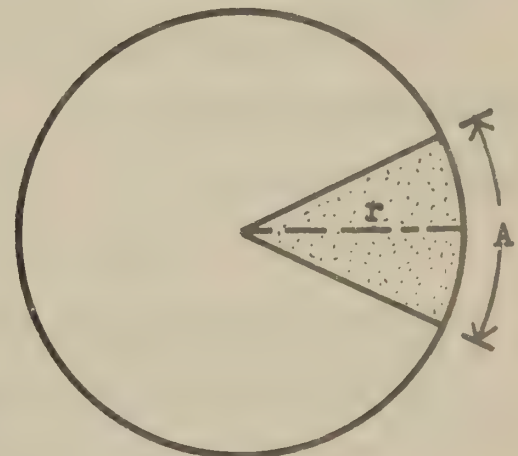


Figure 11

Circular Segment of a Circular Structure

Measurements Required:

1. Length of partition (Y).
2. Distance from wall to partition (X).
3. Depth of the grain in the structure.

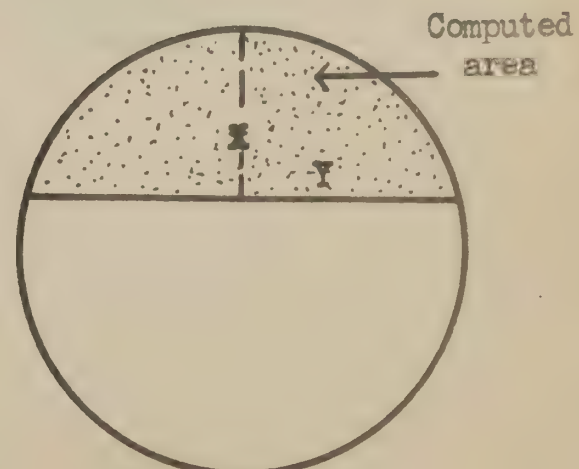




Table 4

Areas in Square Feet

Length of Partition	DISTANCE (X) IN FEET											
(Y)	2'	3'	4'	5'	6'	7'	8'	9'	10'	11'	12'	
12'	16.3	25.2	34.7	45.1	56.5	.....	.....	.....	.....	.....	.....	.....
13'	17.7	27.1	37.2	48.1	60.0	.....	.....	.....	.....	.....	.....	.....
14'	19.0	29.0	39.7	51.1	63.5	77.0	.....	.....	.....	.....	.....	.....
15'	20.3	30.9	42.2	54.2	67.1	81.0	.....	.....	.....	.....	.....	.....
16'	21.6	32.9	44.8	57.3	70.7	85.1	100.5	.....	.....	.....	.....	.....
17'	22.9	34.8	47.3	60.4	74.4	89.2	105.1	.....	.....	.....	.....	.....
18'	24.2	36.8	49.9	63.5	78.1	93.4	109.8	127.2	.....	.....	.....	.....
19'	25.6	38.8	52.4	66.7	81.7	97.7	114.5	132.4	.....	.....	.....	.....
20'	26.9	40.7	55.0	69.9	85.5	101.9	119.3	137.7	157.1	.....	.....	.....
22'	29.5	44.6	60.2	76.3	93.0	110.6	128.9	148.3	168.6	190.0	.....	.....
24'	32.2	48.6	65.4	82.7	100.7	119.3	138.8	159.1	180.3	202.8	226.0	.....
26'	34.8	52.5	70.6	89.2	108.2	128.1	148.5	170.1	192.4	215.7	240.0	.....
28'	37.5	56.5	75.8	95.7	116.0	137.0	158.6	181.1	204.6	228.8	254.0	.....
30'	40.1	60.5	81.1	102.1	123.6	145.9	168.7	192.4	216.8	242.1	268.5	.....
32'	42.8	64.4	86.4	108.7	131.4	154.9	179.0	203.6	229.0	255.6	283.0	.....
34'	45.4	68.4	91.7	115.3	139.2	163.9	189.0	215.0	241.5	269.1	297.5	.....
36'	48.1	72.4	96.9	121.8	147.0	173.0	199.4	226.5	254.0	282.7	312.2	.....

Interpolate for intermediate length of partition and distances from wall partition.  
(From "Handbook of Culvert and Drainage Practices.")

Gross Cubic Feet = Square Feet X the depth of the grain.

Regular Polygonal Structure

Measurements Required:

1. Length of a side (A).
2. Inside diameter of the structure (D).
3. Depth of the grain in the structure.

Gross Cubic Feet =  $\frac{1}{4}$  the inside diameter (D) X the sum of the sides (A) X the depth of the grain, or (A) X the number of sides X  $\frac{1}{4}$  (D) X the depth of the grain.

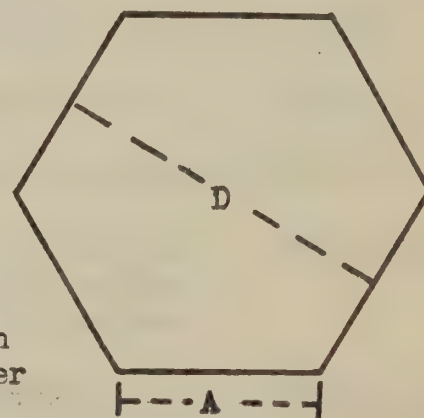


Figure 13



## Piled Grain

### Measurements Required:

1. Height of the grain (H).
2. Diameter of the base (D).

Gross Cubic Feet =  $0.2618 \times \text{height of the grain} \times \text{diameter squared}$ , or  $\frac{1}{3}$  ( $0.7854 \times \text{diameter squared}$ )  $\times$  height of the grain.

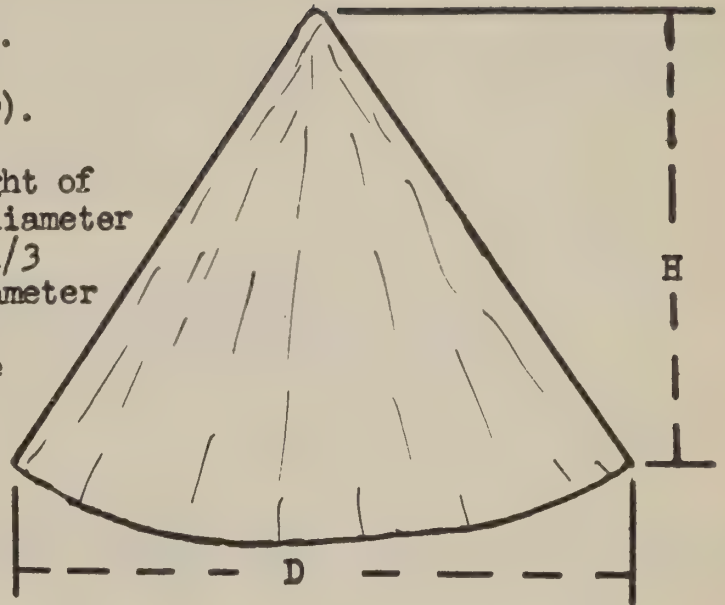


Figure 14

After the gross cubic feet of grain in a structure is obtained, the net cubic feet is determined by deducting the cubic footage of space taken up in the grain by chutes, vents, studs, etc. The cubic feet displaced by studs may be determined by the following method:

If the studding is 2 X 4: Multiply the number of studs times the depth of the studs in the grain, and divide by 18.

If the studding is 2 X 6: Multiply the number of studs times the depth of the studs in the grain, and divide by 12.

Example: If the structure has 30 studs of 2 X 6, and the depth of the grain is 5 feet:

$$\frac{30 \times 5}{12} = 12.5 \text{ cubic feet.}$$



After the net cubic feet of grain in the structure has been determined, gross bushels or hundredweights by volume are obtained by multiplying the net cubic feet by the applicable factor shown below:

Table 5

Factor to be Applied to Net  
Cubic Feet of Grain to Obtain  
Gross Bushels and Gross Hundredweights by Volume

Commodity	Assumed Test Weight	Factor to Obtain Gross Bushels by Vol.	Factor to Obtain Gross Hundredweights by Vol.
Wheat	60	0.8	0.48
Soybeans	60	0.8	0.48
Beans	60	0.8	0.48
Flaxseed	56	0.8	0.448
Corn (Shelled)	56	0.8	0.448
Corn (Ear, shelled basis)	56	0.4	0.224
Grain Sorghums	56	0.8	0.448
Rye	56	0.8	0.448
Barley	48	0.8	0.384
Rice	45	0.8	0.36
Oats	32	0.8	0.256
Peanuts (Spanish)	30	0.8	0.24
(Runners)	28	0.8	0.224
(Virginia)	22	0.8	0.176

Gross bushels or hundredweights by weight may be obtained by multiplying gross bushels or hundredweights by volume by a percentage factor based on the actual test weight of the grain. A table of test weights and percentage is shown below:



- 37 -  
Table 6

Correction Factors to Convert Gross Bushels  
and Gross Hundredweights by Volume to Gross  
Bushels and Gross Hundredweights by Weight

Test Weight (Pounds)	Percentage Factor							
	Wheat-Soybeans Beans	Flaxseed-Corn, shelled-Grain sorghums-Rye	Barley	Rice	Oats	Spanish	Peanuts Runners	Virginia
65	108							
64	107							
63	105							
62	103							
61	102	109						
60	100	107						
59	98	105						
58	97	104						
57	95	102						
56	93	100						
55	92	98						
54	90	96						
53	88	95	110					
52	87	93	108					
51	85	91	106					
50	83	89	104	111				
49	82	87	102	109				
48	80	86	100	107				
47	78	84	98	104				
46	77	82	96	102				
45	75	80	94	100				
44	73	79	92	98				
43	72	77	90	96				
42	70	75	87	93				
41	68	73	85	91				
40	67	71	83	89				
39	65	70	81	87	122			
38	63	68	79	84	119			
37	62	66	77	82	116			
36	60	64	75	80	112			
35		62	73	78	109	117		
34		61	71	76	106	113		
33			69	73	103	110	118	
32			67	71	100	107	114	
31			65	69	97	103	111	
30			62	67	94	100	107	
29				64	91	97	104	
28				62	87	93	100	127
27					84	90	96	123
26					81	87	93	118
25					78	83	89	114
24					75	80	86	109
23						77	82	105
22						73	79	100
21						70	75	95
20						67	71	91
19						63	68	86
18							64	82
17								77
16								73











